

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Carolina Alonso

GENERAL INFORMATION:

Name:	ISP Chemicals, LLC
Address:	Highway 95 Calvert City, KY 42029
Date application received:	1/2/2008
SIC Code/SIC description:	2869, Chemicals and Allied Products
Source ID:	21-157-00003
Source A.I. #:	2939
Activity ID:	APE20080001
Permit:	V-06-052 Revision 1

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
X Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual* (tpy)	Potential (tpy)
PM	21.06	41.24
PM ₁₀	15.41	30.82
SO ₂	1984.38	3239.92
NO _x	293.45	512.74
CO	102.63	237.21
VOC	509.31	1201.87
Single HAPs > 10 tpy		
Acetaldehyde	13.35	129.21
Benzene	13.33	55.62
Methanol	14.57	19.64
Toluene	9.05	14.31
Source wide HAPs	61.42	312.75

* From "2007 Emissions Survey" (TEMPO)

SOURCE DESCRIPTION:

ISP Chemicals Inc. (ISP) is a large Synthetic Organic Chemical plant that makes a wide variety of intermediates and specialty chemicals. The source is a major source, as defined by 401 KAR 52:020 Title V Permits, for the potential emissions of over 100 tons per year of sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC), the potential of a single hazardous air pollutant (HAP) greater than 10 tons per year, and the potential combined HAP emissions greater than 25 tons per year.

The source is also a major source, as defined by 401 KAR 51:017 Prevention of Significant Deterioration of Air Quality (PSD), for potential emissions of over 100 tons per year of SO₂, CO, NO_x, and VOC.

ISP is incorporating requirements for 40 CFR 63 Subpart FFFF, Miscellaneous Organic Chemical Manufacturing (MON). The application includes an extension to the construction of new reactor and dryer in the 240 Building. Since uncontrolled emissions are over 40 tpy for VOC, the facility has accepted operating limits to preclude the applicability of PSD.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

In order to preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), the source is complying with the following limits:

Area	Equipment	Limit Description	Pollutant
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Area	Equipment	Limit Description	Pollutant
BLO	BLO process unit	The permittee shall calculate and maintain a record of actual process vent emissions, in tons per year on a calendar year basis, of VOC from the BLO process unit.	VOC
240 Building	Reactor 5 and Dryer 4	Emissions shall not exceed 36 ton/yr.	VOC
236 Building	Drum Dryer 236/3506	Actual emissions shall not exceed 36 ton/yr.	VOC
Zurn Boiler	Zurn Boiler	No. 2 Fuel Oil use shall not exceed 700,000 gal/year.	SO ₂
Zurn Boiler	Zurn Boiler	Emissions shall not equal or exceed 36 ton/year.	SO ₂

OPERATIONAL FLEXIBILITY:

None